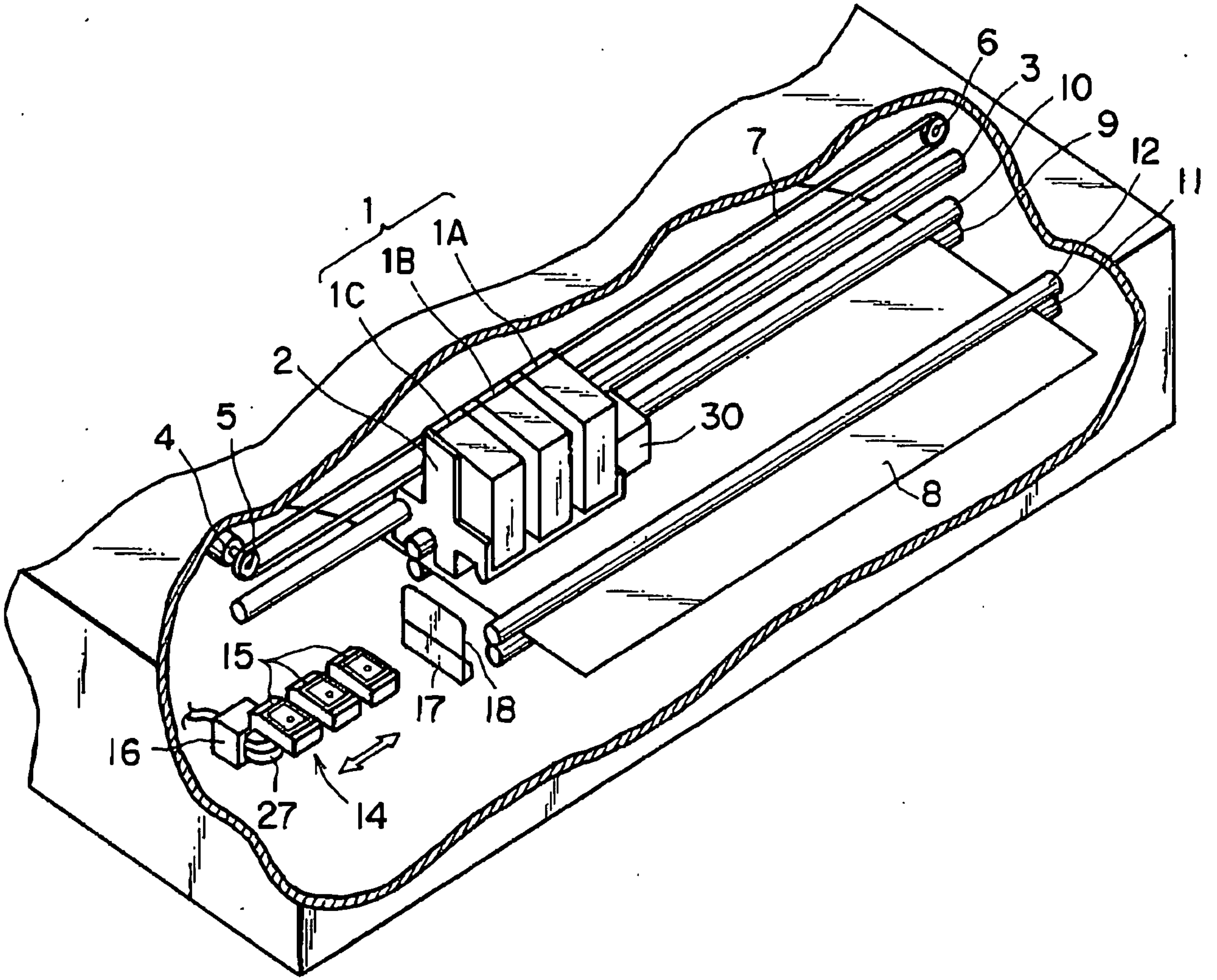

1
1A
1B
1C
2
3
4
5
6
7
8
9
10
11
12
14
15
16
17
18
27
30

FIG. 1

09891589.062701

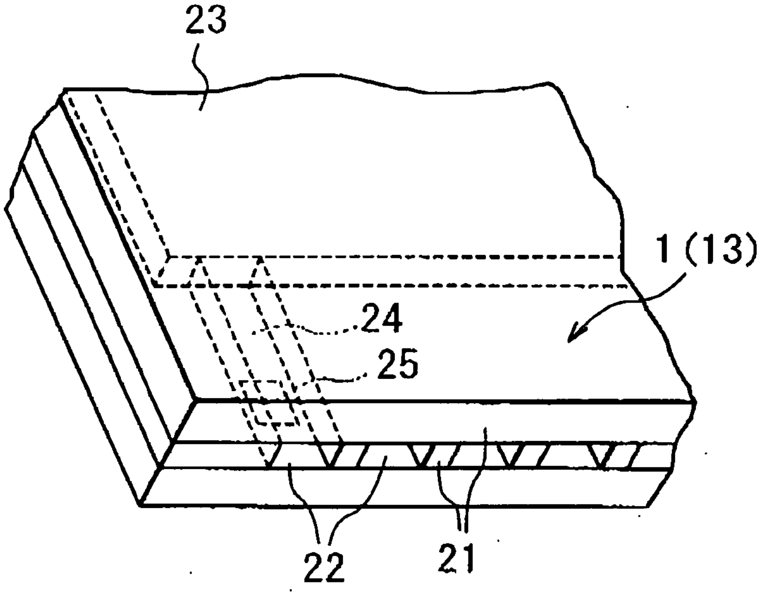

23
1(13)
24
25
22
21

FIG. 2

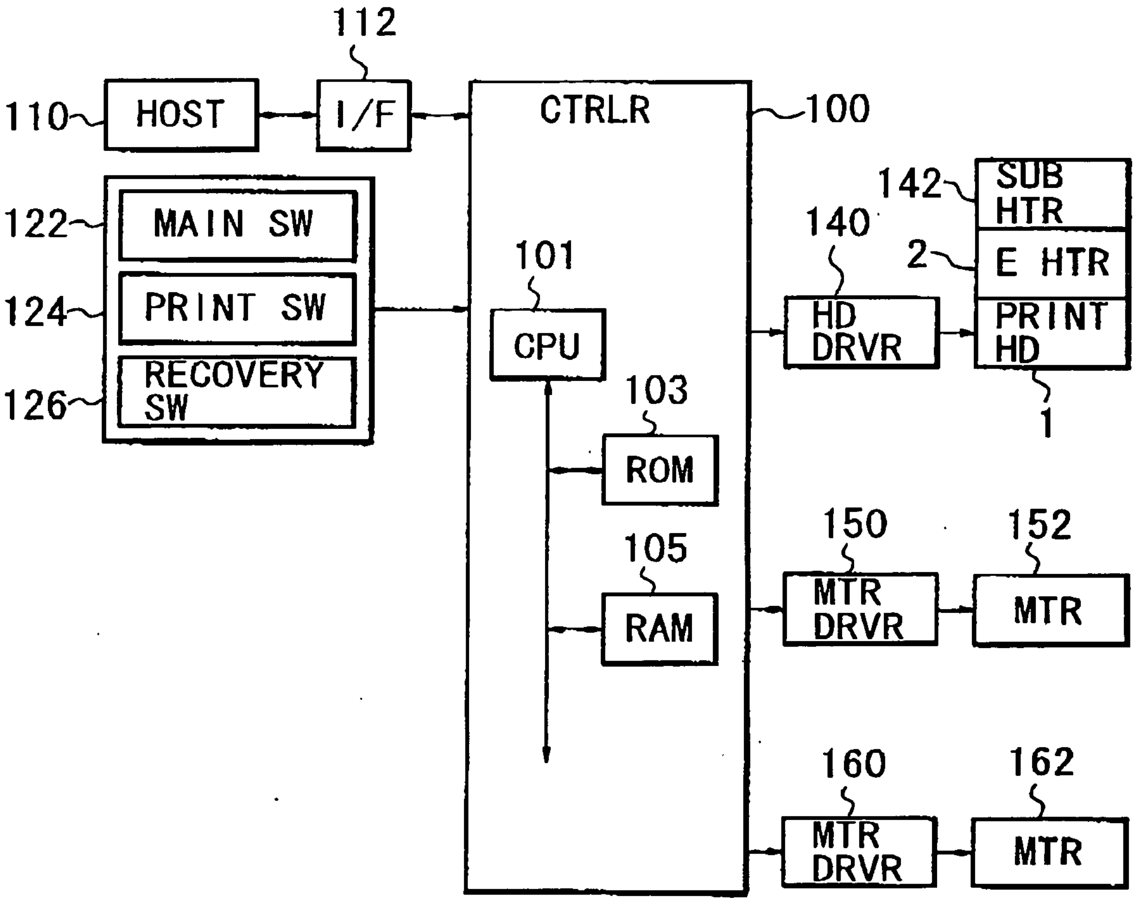

112
110
HOST
I/F
CTRLR
100
122
MAIN SW
124
PRINT SW
126
RECOVERY SW
101
CPU
103
ROM
105
RAM
140
HD DRVR
142
SUB HTR
2
E HTR
PRINT HD
1
150
MTR DRVR
152
MTR
160
MTR DRVR
162
MTR

FIG. 3

09861589 .052701

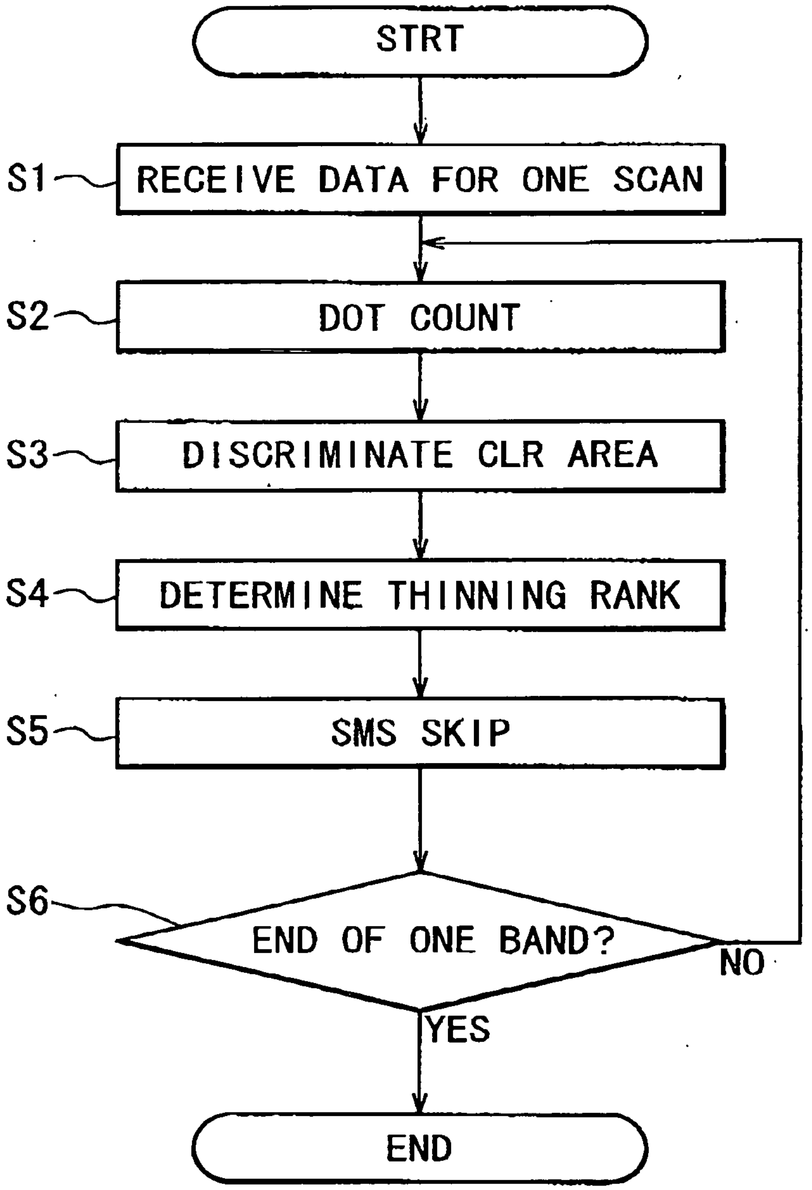

STRT
S1
RECEIVE DATA FOR ONE SCAN
S2
DOT COUNT
S3
DISCRIMINATE CLR AREA
S4
DETERMINE THINNING RANK
S5
SMS SKIP
S6
END OF ONE BAND?
NO
YES
END

FIG. 4

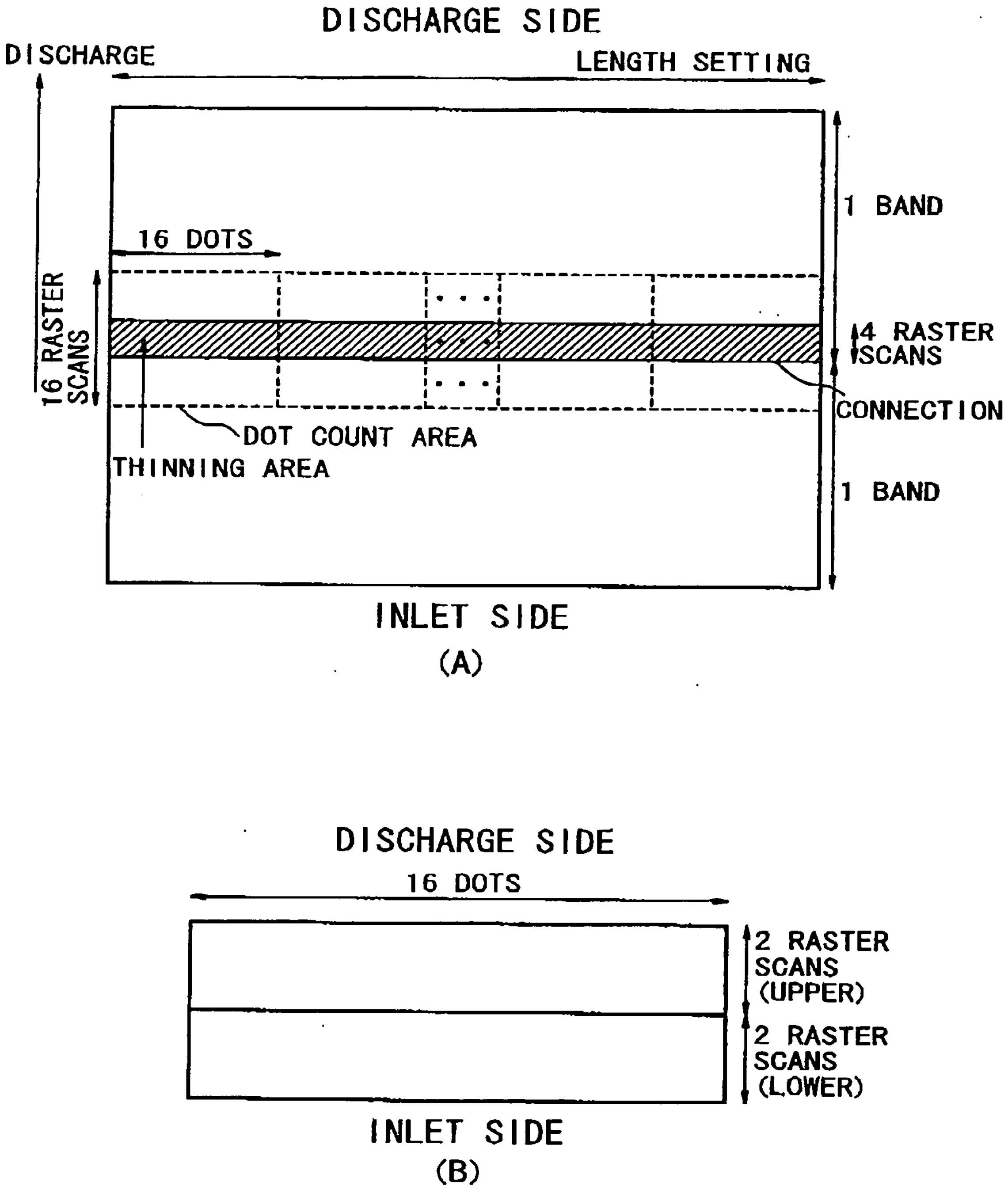

DISCHARGE SIDE
DISCHARGE
LENGTH SETTING
1 BAND
16 DOTS
16 RASTER SCANS
4 RASTER SCANS
CONNECTION
DOT COUNT AREA
THINNING AREA
1 BAND
INLET SIDE
(A)
DISCHARGE SIDE
16 DOTS
2 RASTER SCANS (UPPER)
2 RASTER SCANS (LOWER)
INLET SIDE
(B)

FIG. 5

09815860.072901

09891589.062701

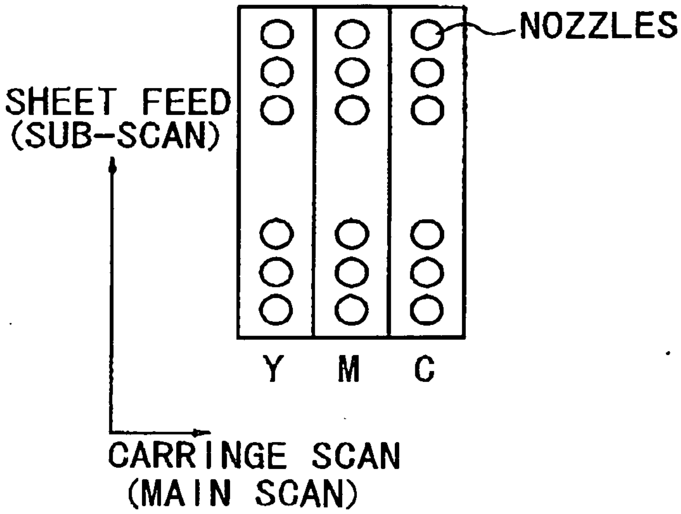

NOZZLES
SHEET FEED
(SUB-SCAN)
Y
M
C
CARRINGE SCAN
(MAIN SCAN)

FIG. 6

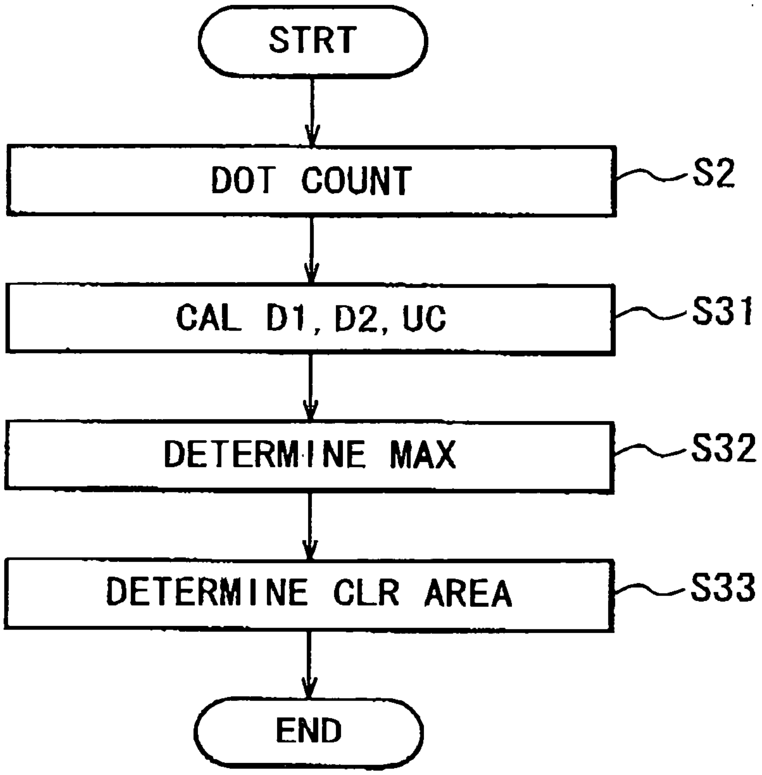

STRT
DOT COUNT
S2
CAL D1, D2, UC
S31
DETERMINE MAX
S32
DETERMINE CLR AREA
S33
END

FIG. 7

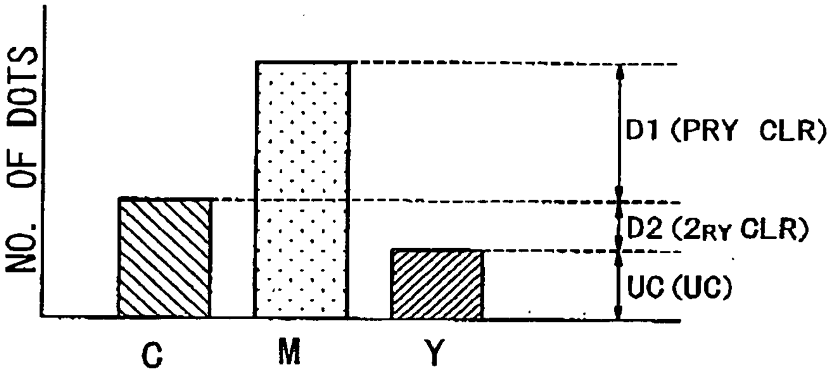


FIG. 8

09815680 .062701

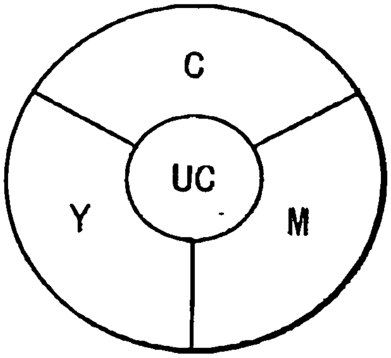
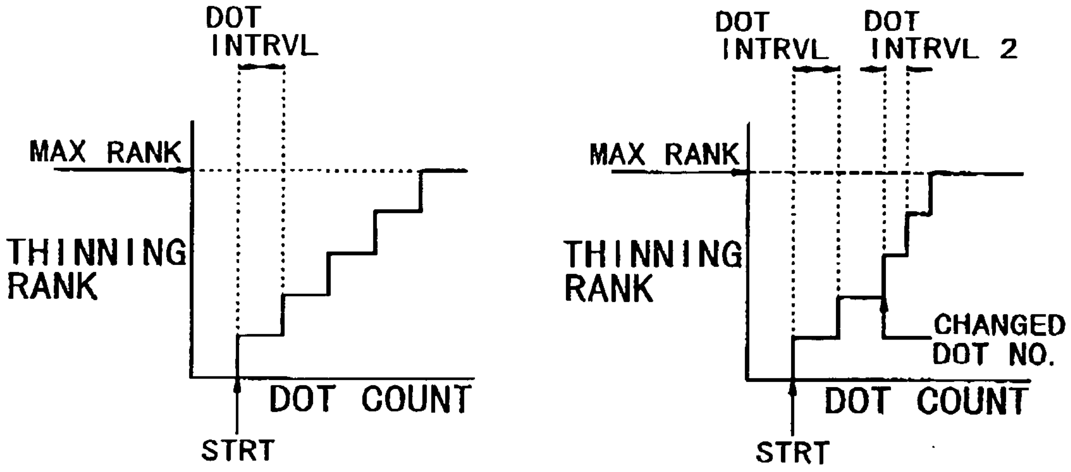


FIG. 9

09891589.062701



(A)

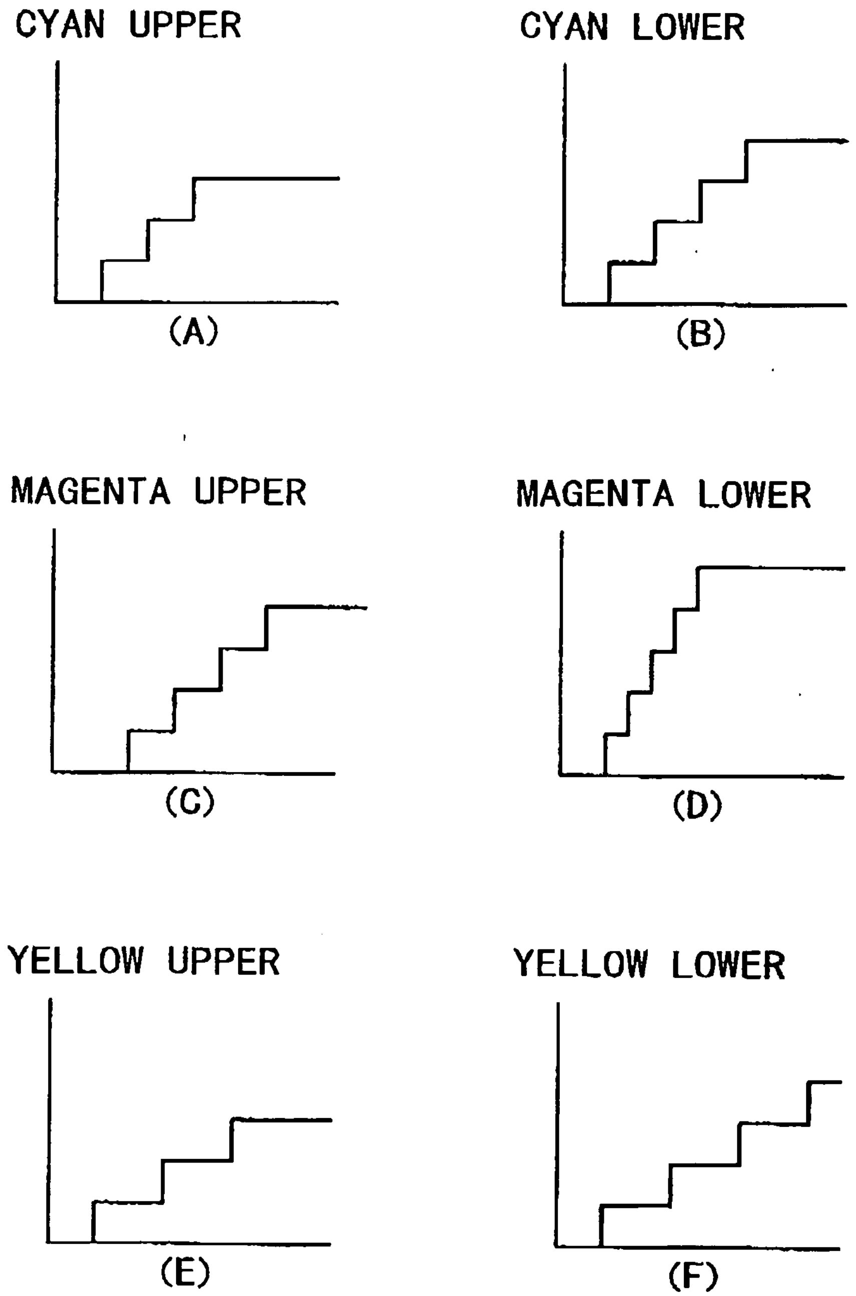
(B)

FIG. 10

THINNING LVL	COUNT	THINNING RATIO
0	11111111	0/8=0%
1	01111111	1/8=12.5%
2	01110111	2/8=25%
3	01010111	3/8=37.5%
4	01010101	4/8=50%
5	00010101	5/8=62.5%
6	00010001	6/8=75%
7	00000001	7/8=87.5%
8	00000000	8/8=100%

FIG. 11

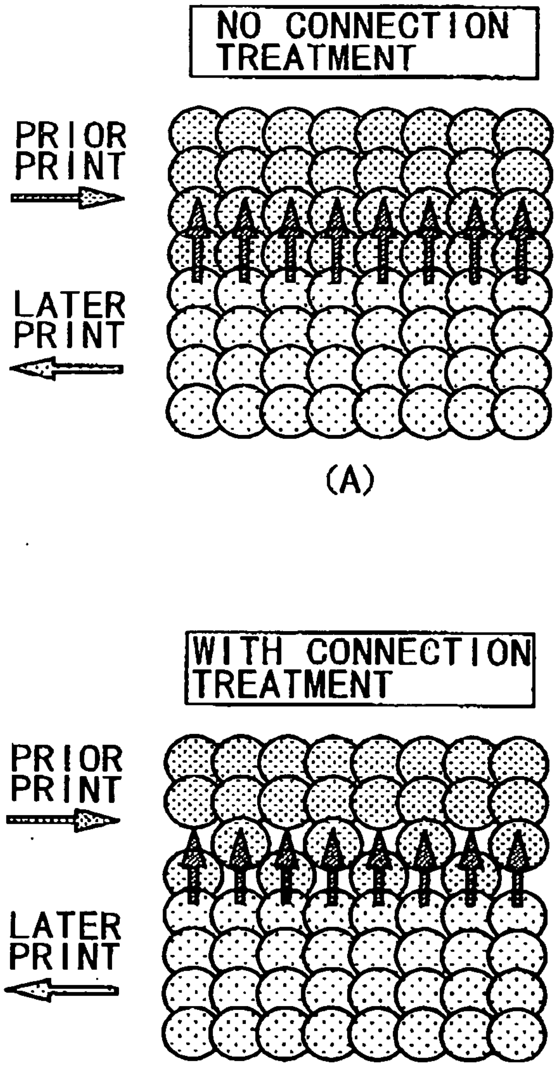
09891589.052701



(A) (B) (C) (D) (E) (F)

FIG. 12

09891589.062701


NO CONNECTION TREATMENT
PRIOR PRINT
LATER PRINT
WITH CONNECTION TREATMENT
PRIOR PRINT
LATER PRINT

(A)

(B)

FIG. 13

	(PRINT DATA)	(COUNT)
(A)	○×○○○×○×××○○×	01110111
	ORGNL DATA	
	[1ST PRINT DATA]	
	BEFORE TREATMENT	
(B)	○×○○○×○×××○○×	01110111
	AFTER TREATMENT	
	××○○○×○×××○○×	11101110
	[2ND PRINT DATA]	
	BEFORE TREATMENT	
(C)	××○○○×○×××○○×	11101110
	AFTER TREATMENT	
	××○○○×○×××○○×	11101110
	[SMS TREATMENT]	
	ORGNL DATA	
(D)	○×○○○×○×××○○×	
	TREATED DATA	
	××○○○×××××○○×	

FIG. 14

09815860 . 092701

09851589.062701

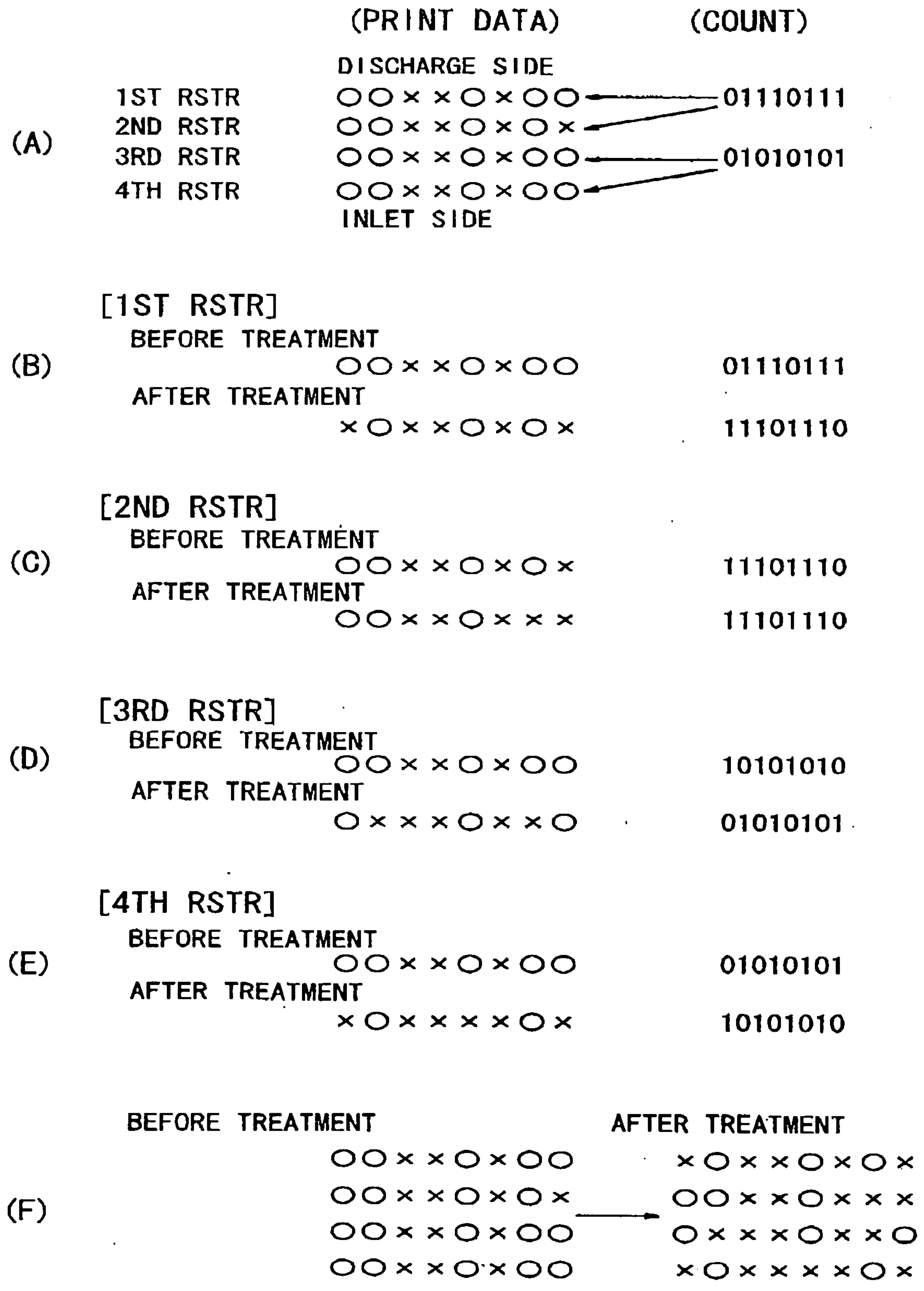

(PRINT DATA)
(COUNT)
DISCHARGE SIDE
(A)
1ST RSTR ○○×××○×○○ 01110111
2ND RSTR ○○××○×○×
3RD RSTR ○○××○×○○ 01010101
4TH RSTR ○○××○×○○
INLET SIDE
(B)
[1ST RSTR]
BEFORE TREATMENT
○○××○×○○ 01110111
AFTER TREATMENT
×○××○×○× 11101110
(C)
[2ND RSTR]
BEFORE TREATMENT
○○××○×○× 11101110
AFTER TREATMENT
○○××○××× 11101110
(D)
[3RD RSTR]
BEFORE TREATMENT
○○××○×○○ 10101010
AFTER TREATMENT
○×××○××○ 01010101
(E)
[4TH RSTR]
BEFORE TREATMENT
○○××○×○○ 01010101
AFTER TREATMENT
×○××××○× 10101010
(F)
BEFORE TREATMENT
AFTER TREATMENT
○○××○×○○ ×○××○×○×
○○××○×○× ○○××○×××
○○××○×○○ ○×××○××○
○○××○×○○ ×○××××○×

FIG. 15

09891589.062701

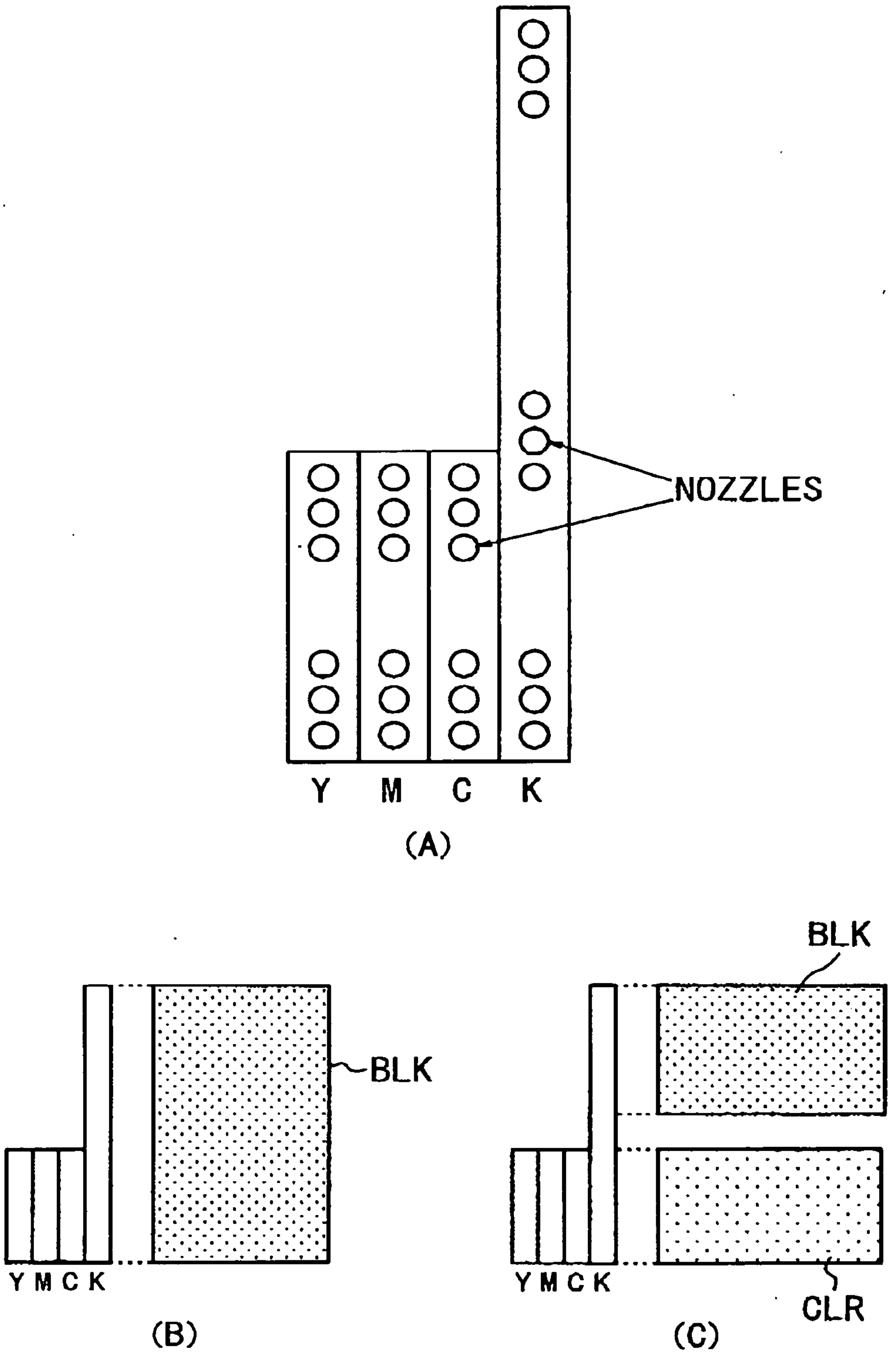

NOZZLES
Y
M
C
K
(A)
BLK
Y M C K
(B)
BLK
CLR
Y M C K
(C)

FIG. 16

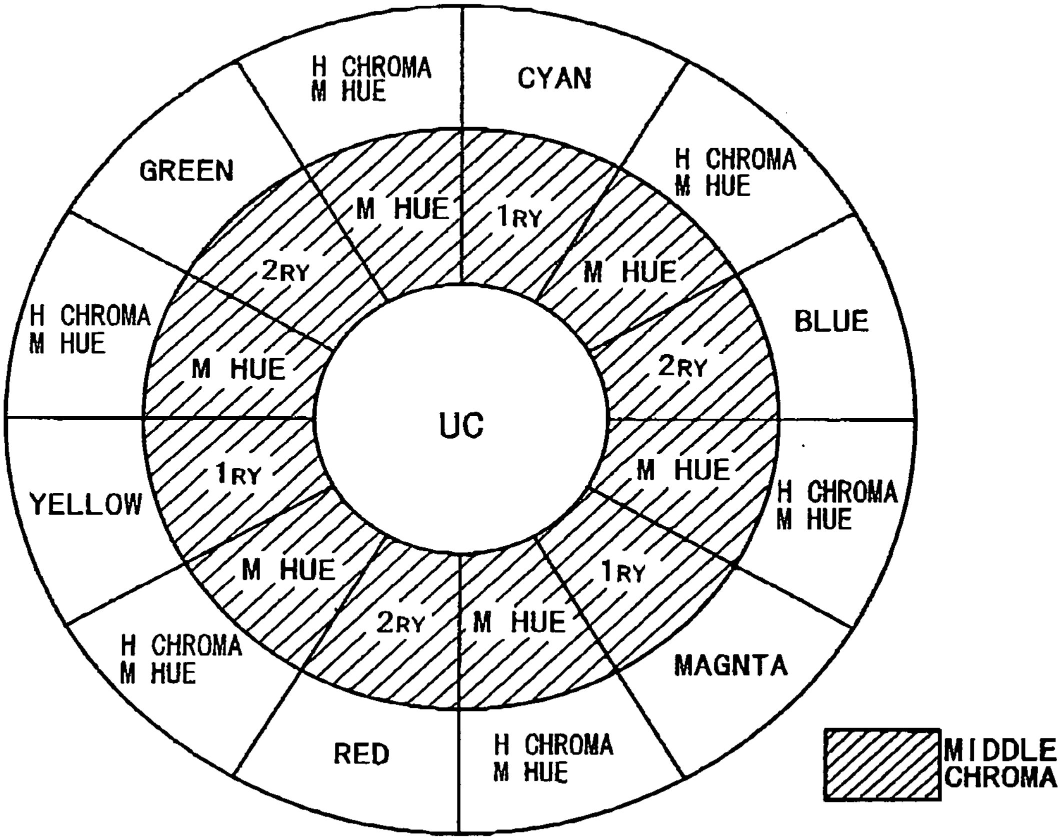
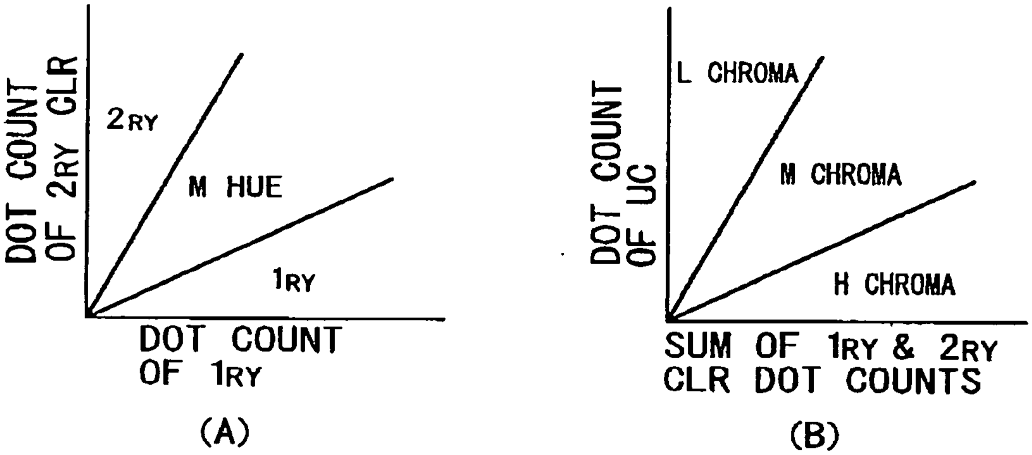

H CHROMA
M HUE
CYAN
GREEN
H CHROMA
M HUE
M HUE
1RY
2RY
M HUE
BLUE
H CHROMA
M HUE
M HUE
2RY
UC
YELLOW
1RY
M HUE
H CHROMA
M HUE
M HUE
1RY
2RY
M HUE
H CHROMA
M HUE
MAGNTA
RED
H CHROMA
M HUE
▨ MIDDLE CHROMA

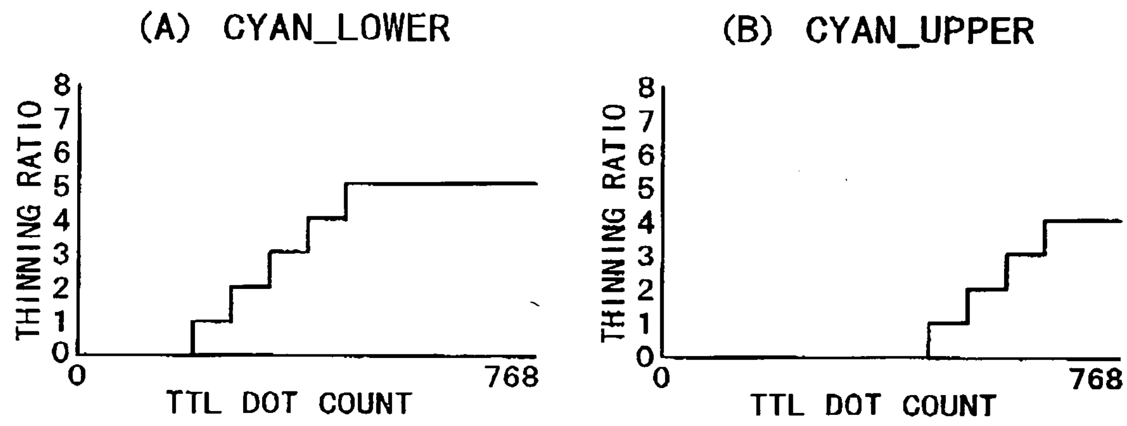
FIG. 17



(A)

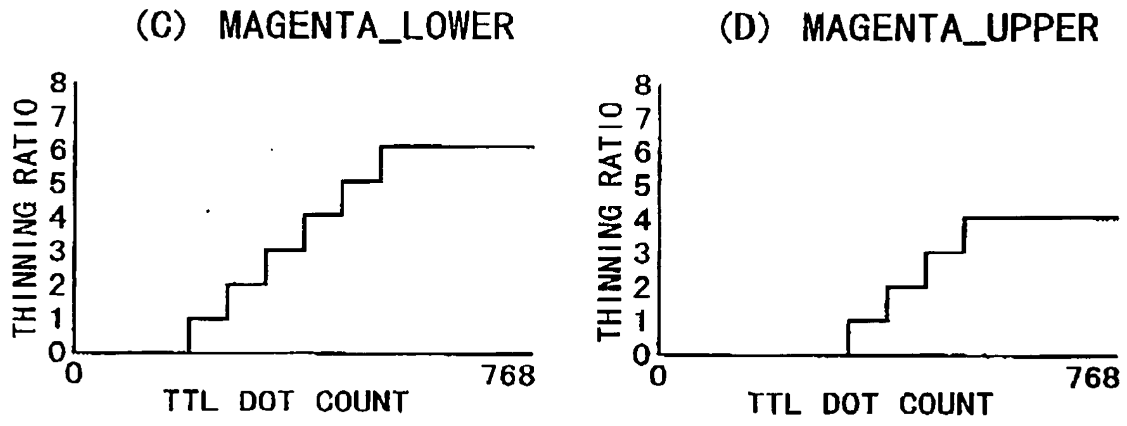
(B)

FIG. 18

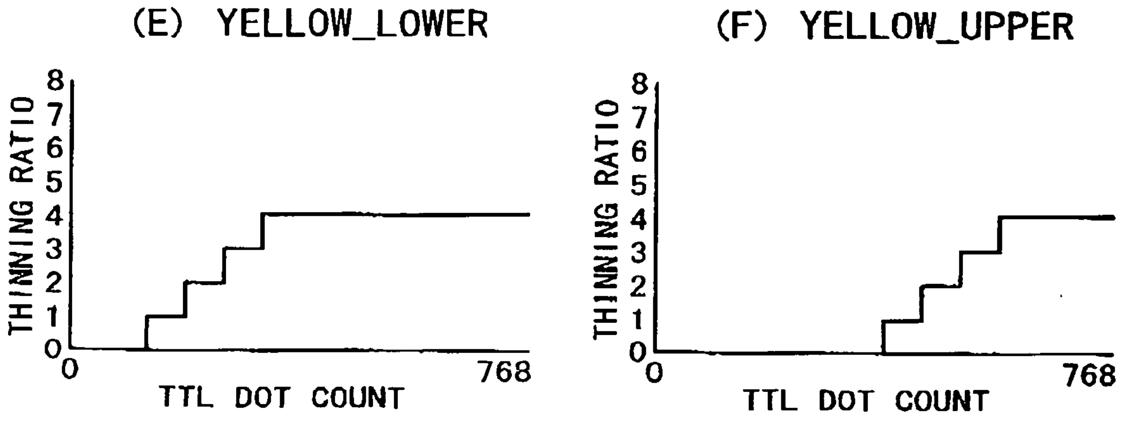

(A) CYAN_LOWER

(B) CYAN_UPPER

10/290 . 68516860


(C) MAGENTA_LOWER

(D) MAGENTA_UPPER


(E) YELLOW_LOWER

(F) YELLOW_UPPER

FIG. 19

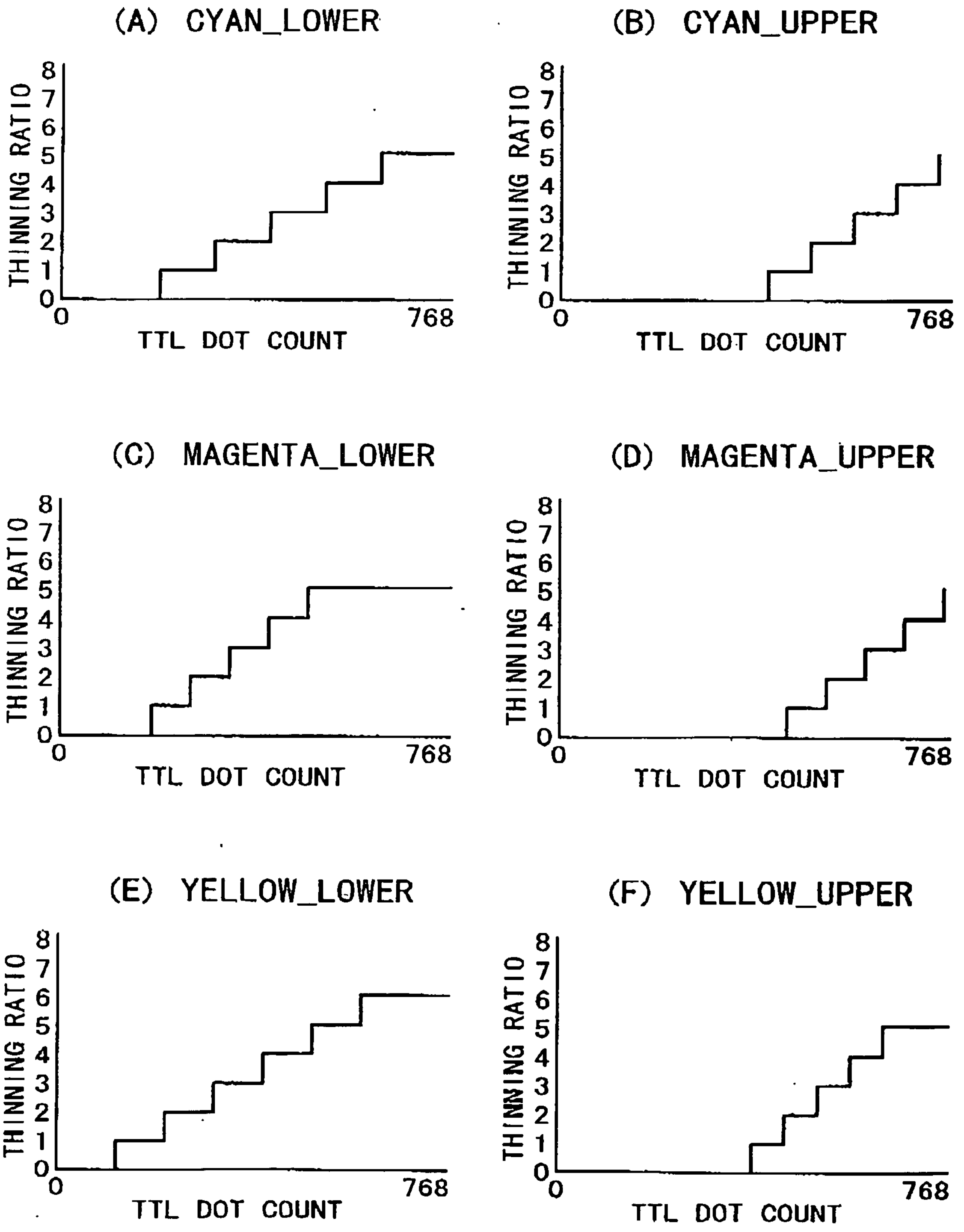


FIG. 20

09891586.062701

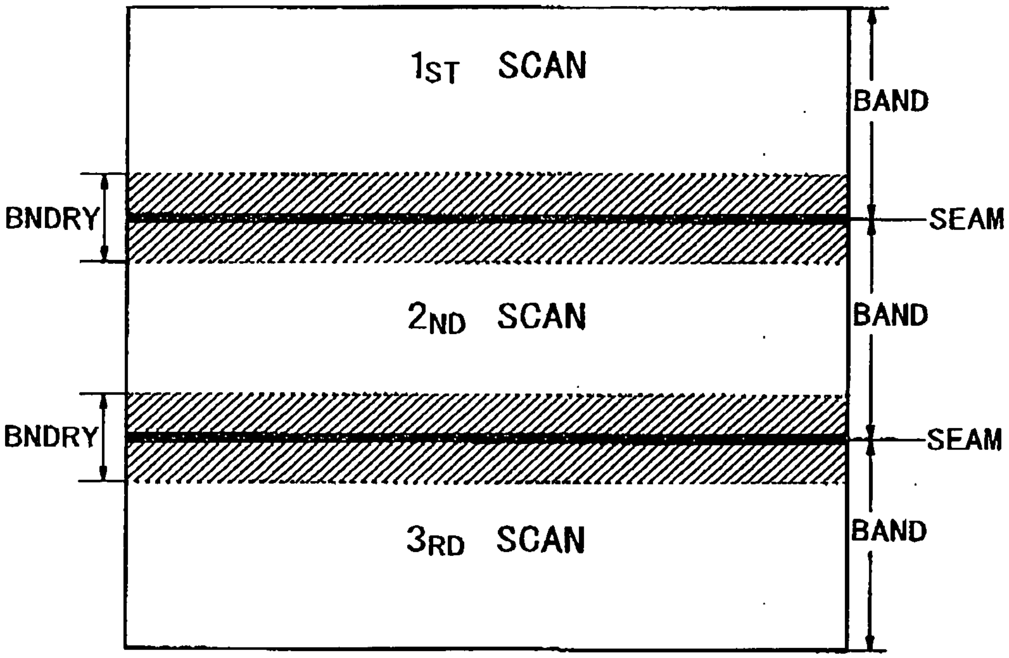

1ST SCAN
2ND SCAN
3RD SCAN
BAND
BAND
BAND
BNDRY
BNDRY
SEAM
SEAM

FIG. 21

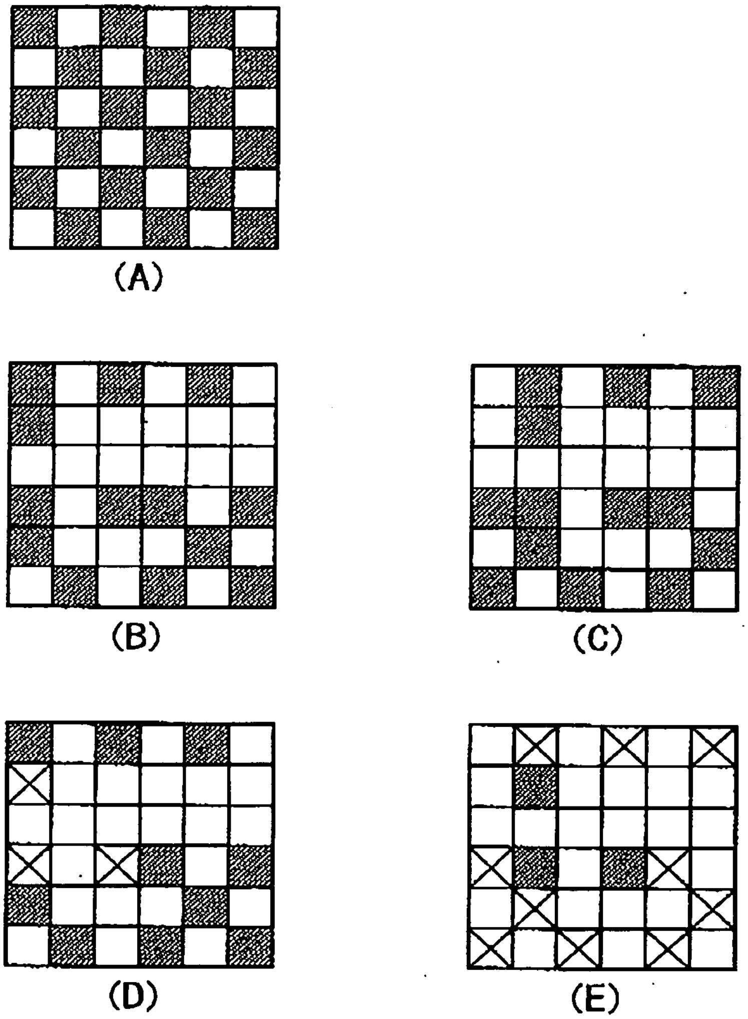
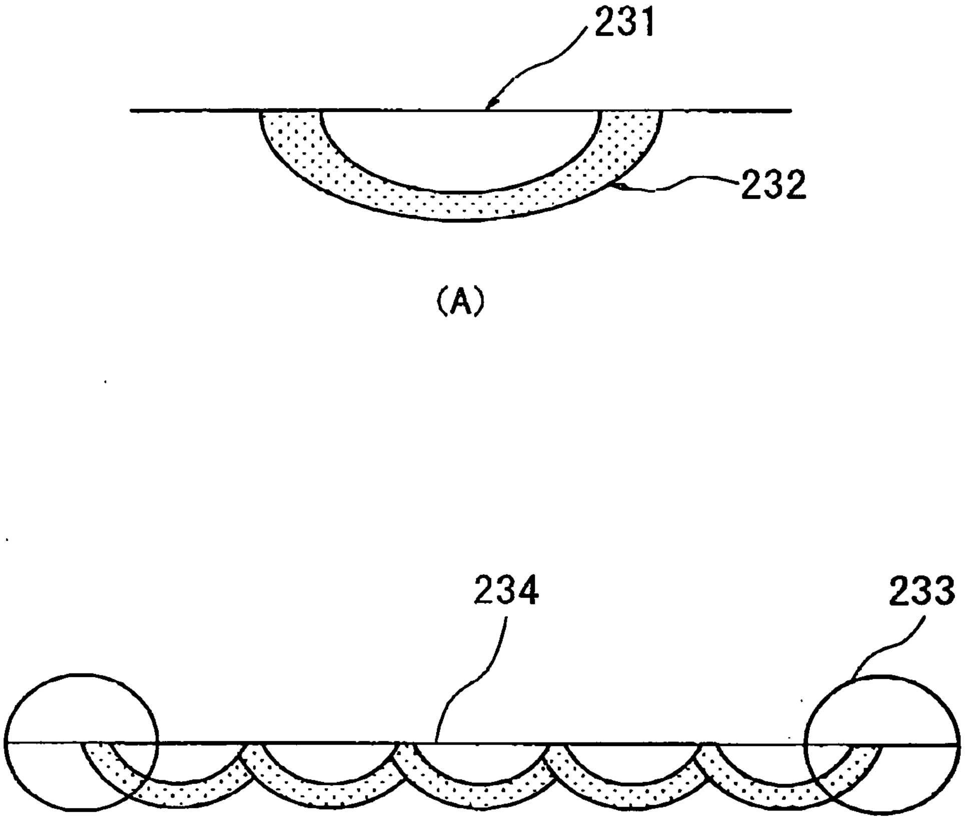

(A)
(B)
(C)
(D)
(E)

FIG. 22


231
232
234
233

(A)

(B)

FIG. 23

09801589.062701

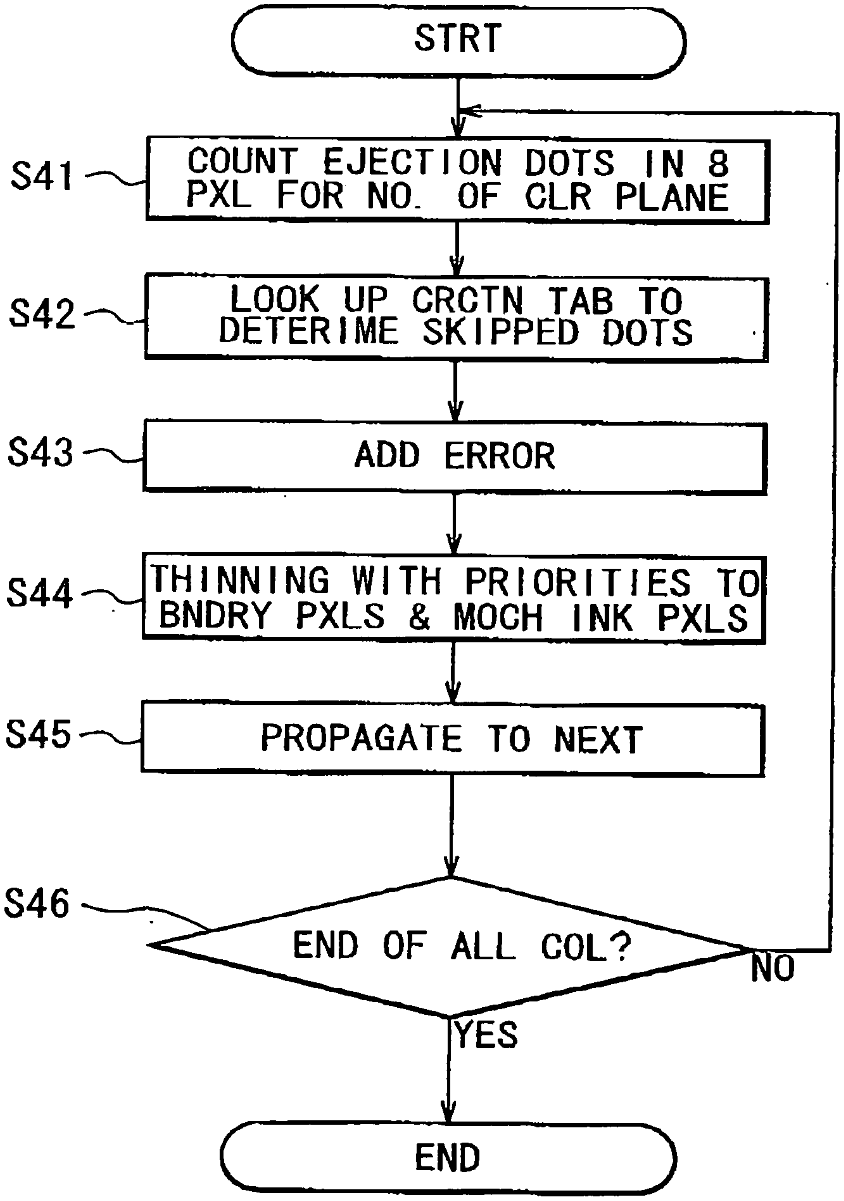

STRT
S41
COUNT EJECTION DOTS IN 8 PXL FOR NO. OF CLR PLANE
S42
LOOK UP CRCTN TAB TO DETERIME SKIPPED DOTS
S43
ADD ERROR
S44
THINNING WITH PRIORITIES TO BNDRY PXLS & MOCH INK PXLS
S45
PROPAGATE TO NEXT
S46
END OF ALL COL?
NO
YES
END

FIG. 24

ETECTION DOT NO.	SKIPPED DOT NO.
0	0
1	0
2	0
3	0
4	0
5	1
6	2
7	2.5
8	3
9	3.2
10	3.4
11	3.6
12	3.8
13	4
14	5.5
15	7
16	8
17	8.5
18	9
19	9.5
20	10
21	10.5
22	11
23	11.5
24	12
25	12.5
26	13
27	13.5
28	14
29	14.5
30	15
31	15.5
32	16

FIG. 25

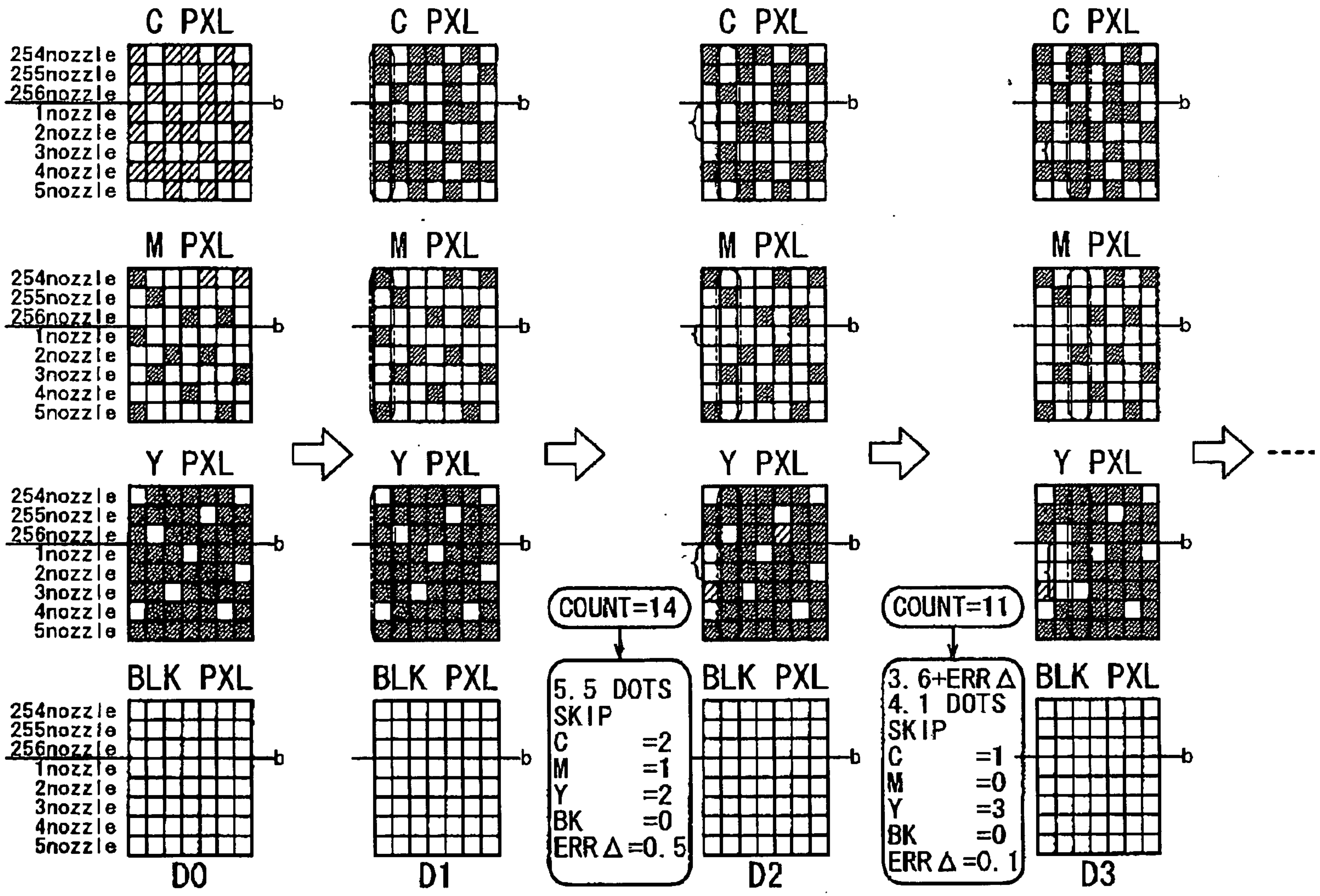

C PXL
M PXL
Y PXL
BLK PXL
254nozzle
255nozzle
256nozzle
1nozzle
2nozzle
3nozzle
4nozzle
5nozzle
b
D0
D1
D2
D3
COUNT=14
5. 5 DOTS
SKIP
C =2
M =1
Y =2
BK =0
ERR Δ =0. 5
COUNT=11
3. 6+ERR Δ
4. 1 DOTS
SKIP
C =1
M =0
Y =3
BK =0
ERR Δ =0. 1

FIG. 26